

Form PTO-1449 (Modified)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Use several sheets if necessary)

(Use several sheets if necessary)

Atty. Docket No.
1856-32201

Serial No.
10/807.851

Applicant
Yi Jiang et al.

Filing Date
March 24, 2004

Group
1764

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	Translation	
							YES	NO
				/				
				/				

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

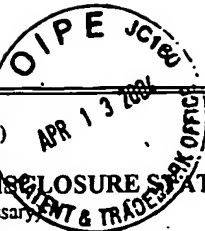
200	BA	PCT SEARCH REPORT IN PCT/US04/08938 dated March 17, 2005 (2 pp.)

EXAMINER Jennifer Leung

DATE CONSIDERED 11/17/2005

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP §609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

APR 13 2004


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REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
JAL	AA	2,287,092	06/23/42	Dufschmid et al.	518	700	—
JAL	AB	2,853,369	09/23/58	Kolbel et al.	422	201	—
JAL	AC	2,868,627	01/13/59	Kolbel et al.	422	200	—

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	Translation YES NO

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

JAL	BA	"Liquid Phase Dispersion In Bubble Columns Operating In The Churn-Turbulent Flow Regime," Chemical Engineering Journal, Vol. 78 (2000), pp. 43-51.					
JAL	BB	"Fluid Dynamic Parameters In Bubble Columns With Internals," Chemical Engineering Science, Vol. 54 (1999), pp. 2187-2197.					
JAL	BC	Bubble Column Reactors And Fischer-Tropsch Synthesis, 1995, pp. 228-309					

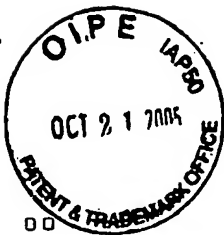
EXAMINER

Jennifer Leung

DATE CONSIDERED

11/17/05

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/807.851	
			Filing Date	March 24, 2004	
			First Named Inventor	Yi Jiane et al.	
			Group Art Unit	1621	
			Examiner Name	Jafar F. Parsa	
Sheet	1	of	3	Attorney Docket Number	1856-32201 (9422.0-01)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
JAL	AA	US-5384336	01-24-1995	Koros	—
JAL	AB	US-6825237	11-30-2004	Schweitzer et al.	—
JAL	AC	US-2139943	12-13-1938	Fenske et al.	—
JAL	AD	US-2395777	02-26-1946	Brunjes et al.	—
JAL	AE	US-2986454	05-30-1961	Jewett	—
JAL	AF	US-3230055	01-18-1966	Wolfrom	—
JAL	AG	US-4702891	10-27-1987	Li et al.	—
JAL	AH	US-6914083	07-05-2005	Hensman	—
JAL	AI	US-4313848	02-02-1982	Scott	—
JAL	AJ	US-5827902	10-27-1998	Maretto & Piccolo	—
JAL	AK	US-6201031	03-13-2001	Steynberg et al	—
JAL	AL	US- 5268344	12-07-1993	Pedrick et al	—
—	—	—	—	—	—

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
JAL	AM	WO 99/00191	01-07-1999	Maretto et al	—	
JAL	AN	GB- 2358816 A	08-08-2001	Bowe & Stairmand	—	

Examiner Signature	Jennifer Leung	Date Considered	11/17/2005
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				Group Art Unit	1621
Examiner Name	Jafar F. Parsa				
Sheet	2	of	3	Attorney Docket Number	1856-32201 (9422.0-01)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate) title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issued number(s), publisher, city and/or country where published.	T ²
me	BA	MARETTO et al, "Design and Optimization of a Multi-Stage Bubble Column Slurry Reactor for Fischer-Tropsch Synthesis," <i>Catalysis Today</i> (March 30, 2001) Vol. 66, Issues 2-4, pp. 241-248	
me	BB	URSEANU et al, "A Structured Catalytic Bubble Column Reactor: hydrodynamics and mixing studies", <i>Catalysis Today</i> (Sept. 15, 2001) Vol. 69, Issues 1-4, pp. 105-113	
me	BC	DREHER et al, "Liquid-phase Backmixing in Bubble Columns, Structured by the Introduction of Partition Plates", <i>Catalysis Today</i> (Sept. 15, 2001) Vol. 69, Issues 1-4, pp. 165-170	
me	BD	FORRET et al, "Influence of Scale on the Hydrodynamics of Bubble Column Reactors: An Experimental Study in Columns of 0.1, 0.4 and 1 m Diameters", <i>Chemical Engineering Science</i> (Feb-March 2003) Vol. 58, Issues 3-6, pp. 719-724	
me	BE	SONG et al, "Multiplicity and Sensitivity Analysis of Fischer-Tropsch Bubble Column Slurry Reactors: Plug-flow Gas and Well-mixed Slurry Model", <i>Chemical Engineering Science</i> (June 2003) Vol. 58, Issue 12, pp. 2759-2766	
me	BF	ZHAO et al, "Mass transfer to viscous liquids in bubble columns and air-lift reactors: influence of baffles", <i>Chemical Engineering Science</i> (July 1994) Vol. 49, Issue 14, pp. 2359-2369	
me	BG	YANG et al, "Liquid backmixing in bubble columns", <i>Chemical Engineering Science</i> (June 8, 1992) Vol. 47, Issues 9-11, 8 pp. 2859-2864	
me	BH	FORRET et al, "Liquid Dispersion in Large Diameter Bubble Columns, with and without Internals", <i>The Canadian Journal of Chemical Engineering</i> (June-August 2003) Vol. 81, pp. 360-366	
me	BI	MOLERUS et al, "Hydrodynamics of bubble columns in the liquid circulation regime", <i>Chemical Engineering Science</i> (1986) Vol. 41, Issue 10, pp. 2685-2692	
me	BJ	KRISHNA, "A scale-up strategy for a commercial scale bubble column slurry reactor for Fischer-Tropsch synthesis", <i>Oil & Gas Science and Technology</i> (2000), Vol. 55 (Issue 4), pp. 359-393	
me	BK	BI et al, "A state-of-the-art review of gas-solid turbulent fluidization", <i>Chemical Engineering Science</i> (Nov. 2000) Vol. 55, Issue 21, pp. 4789-4825	

Examiner Signature	Jennifer Leung	Dated Considered	11/17/2005
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<i>JFL</i>	BL	SIE et al, "Fundamentals and selection of advanced Fischer-Tropsch reactors", <i>Applied Catalysis A: General</i> (Oct. 4, 1999) Vol. 186, Issues 1-2, pp. 55-70	
<i>JFL</i>	BM	CHEN et al, "Fluid dynamic parameters in bubble columns with internals", <i>Chemical Engineering Science</i> (July 1999) Vol. 54, Issues 13-14, pp. 2187-2197 Duplicate, see IDS 4/13/04	
<i>JFL</i>	BN	COLMENARES et al, "Fluid-dynamic experimental study in a bubble column with internals", <i>International Communications in Heat and Mass Transfer</i> (April 2001) Vol. 28, Issue 3, , pp. 389-398	
<i>JFL</i>	BO	SCHLUTER et al, "Heat transfer in two- and three-phase bubble column reactors with internals", <i>Chemical Engineering and Processing</i> (June 1995) Vol. 34, Issue 3, pp. 157-172	
<i>JFL</i>	BP	SAXENA et al, "Estimation of gas holdup in a slurry bubble column with internals: nitrogen-Therminol-magnetite system", <i>Powder Technology</i> (1993), Vol. 75, Issue 2, pp. 153-158	
<i>JFL</i>	BQ	KRISHNA et al, "A Strategy for Scaling Up the Fischer-Tropsch Bubble Column Slurry Reactor", <i>Topics in Catalysis</i> (December 2003), Vol. 26, Issues 1-4, pp. 21-28	

Examiner Signature	<i>Jennifer Leung</i>	Dated Considered	11/17/05
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